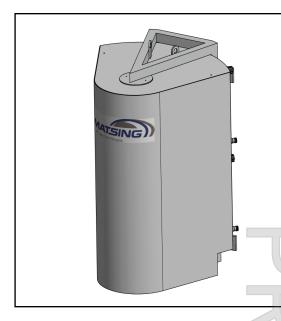


LENS TECHNOLOGY ENABLED

MS-MBA-5.3-F4-H4

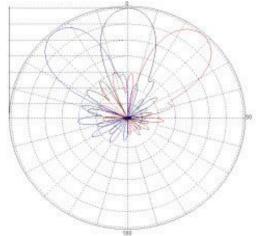
Lens Technology Enabled™ Multi-Beam Base-Station Antenna perfect for nine to fifteen sector LTE cell site deployment, utilizes a patented spherical lens design with 3 isolated high-frequency (1695-2690MHz) cross-polarized beams, each beam has 4 ports for two independent antennas, or 4X4 MIMO. This antenna is also capable of 5 isolated F-Band Frequency (3300- 4200MHz) cross polarized beams, each beam has 4 ports for two independent antennas, or 4X4 MIMO. There are two independent tilt settings per beam (0-30° tilt for each cross- polarized beam).



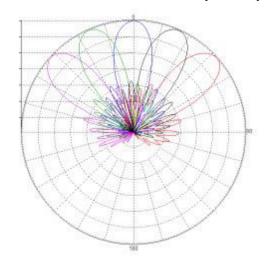


PATTERN RESULTS:

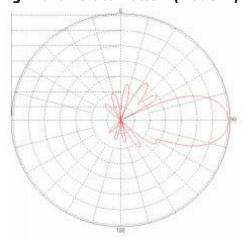
High-Band Horizontal Pattern (1.80GHz)



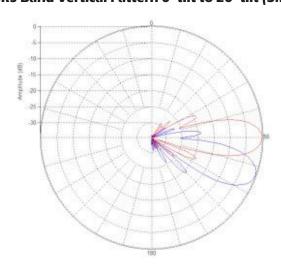
CBRS-Band Horizontal Pattern (3.5GHz)



High-Band Vertical Pattern (1.80GHz)



CBRS-Band Vertical Pattern 0° tilt to 20° tilt (3.5GHz)





TECHNICAL SPECIFICATIONS PER BEAM		
Frequency	3300-4200 GHz	1695-2690 MHz
Gain	17.5dBi	21dBi
VSWR	<1.5:1	<1.5:1
Return Loss	>15dB	>15dB
Polarization	Dual Slant ±45°	Dual Slant ±45°
Horizontal Coverage	120°	120°
Horizontal Beamwidth (10dB)	24 °	40°
Vertical Beamwidth (10dB)	24°	40°
Beam Cross-over	7dB typical	10dB typical
Total Number of Beams	5	3
Number of Ports per Beam	4	4
Number of Ports Total	20	12
Tilt Per Cross-Pol; (Two adjustments per beam)	0° to 30°	0° to 30°
First Sidelobe Level	<-16dB	<-16dB
Front to Back Ratio	>28dB	>28dB
Isolation Port to Port - Polarization	>28dB	>28dB
Isolation Port to Port - Beam	>28dB	>26dB
Power Rating	200W per port	200W per port
Intermodulation	<-153dBc	<-153dBc
Impedance	50 ohm	50 ohm
Connector Quantity and Type	20 x 4.3-10 female	12 x 4.3-10 female

MECHANICAL DATA		
Dimensions (H x W x D)	165 x 61 x 61 cm 65 x 24 x 24 inch	
Antenna Weight	55 kg 121 lbs	
Radome Material	Fiber Glass	
Mounting	Standard Pipe Mount Compatible pipe diameter: 6.1 – 11.4 cm 2.4 – 4.5 inch	
ENVIRONMENTAL RATINGS		

Humidity	95% RH @ +30°C
Temperature	-40°C to +70°C
Wind load @ 150km/h	Frontal: 701 N/157 lbf Lateral: 1007 N/226 lbf

CONNECTOR LAYOUT:

